SCW COMMON CORE

106 Hazardous Material/Hazardous Waste/Environmental Safety Fundamentals

106.1 State the purpose and information contained on the Material Safety Data Sheet (MSDS)

- A document generated by the manufacturer of the material
- Communicates to the users the chemical, physical, and hazardous properties of that material
- In compliance with OSHA hazard communication, standard key information contained includes the following:
  - Name, address, and emergency contact for the manufacturer
  - Physical/Chemical Characteristics
  - Fire and Explosive Hazard Data
  - Reactivity Data
  - Health Hazard Data
  - Precautions for Safe Handling and Use
  - Control measure

106.2 What are the six categories of Hazardous Material

Category	Hazard Level	
A	High	Industrial Operations Heavy Equipment Operation and Maintenance Toxic/Hazardous Materials Handling Construction Other: Exposures to heat, cold, diving salvaging heights or other high-risk work
B	Moderate	Supply/Transportation Medical Mechanics RDT&E: Engineers, test mechanics and laboratory personnel involved in the research, development, evaluation and test of systems
C	Low	Administrative, Clerical, Classroom
D		Shipboard Personnel
E		Operating Forces
F		Students

* Job Hazard Categories D, E, and F can be Hazardous Level High, Moderate, or Low depending upon the specific duties assigned to the individual

106.3 Explain storage procedures for incompatible material.

- Stored according to the type of HAZMAT, certain storage procedures must be applied
- Do not mix flammables and toxic materials, or flammables and corrosives together
- The safest practice is to draw only the amount of material that can be used that day
- Storing hazardous materials on the job site requires the use of approved containers
- Containers must be placed a minimum of 50 feet away from any ignition device or source
- Plan for the delivery of proper storage equipment before hazardous materials are delivered to the job site

106.4 Explain the general procedures to be followed when a Hazardous Material/Hazardous Waste (HM/HW) spill is discovered.

- The unit must respond immediately
- Must have an approved response team, equipment, and disposal plan.
- Reports must be made and tests conducted to ensure no contamination remains
- Disposal of contaminated soils, etc. must follow strict guidelines

106.5 State the personal protection equipment required when handling HM/HW.

Ensure all personnel understand the following

- What hazard materials are present
- What PPE is required for protection from each specific danger
- Example: Face shield, goggles, gloves, apron, and boots.

106.6 Discuss the disposal limitations for the following:

a. Trash

- Rubbish and debris and other debris which can normally be disposed of in a normal landfill

b. Garbage

- Food waste which can be disposed of in a normal landfill

c. Plastic

- Recycled through DRMO at most military bases

d. Sewage

- Only properly disposed of through a sewage treatment plant

e. Oily waste

- Recycled through DRMO

f. Paint/mineral spirits

Disposed of through DRMO as hazardous waste

g. Metal

- Turned in to DRMO for recycling

h. Wood

- Landfill or DRMO for recycling

106.7 Describe required training for all hands with respect to the HM/HW program.

Management personnel

- Receive sufficient training to ensure that an aggressive and continuing OSH program is implemented throughout the activity

Supervisory personnel

- Receive training that enables them to recognize unsafe and unhealthy working conditions and practices in the workplace
- Training shall also include the development of skills necessary to mange the activities OSH program at the work unit level

Non-supervisory personnel

- Training shall include specialized job-safety and health training appropriate to the work performed.

106.8 Describe the purpose of secondary labeling of hazardous material when removed from the original container.

- To inform the user by means of words, pictures, symbols, or combination thereof of specific physical and health hazard(s), including target organ effects, of the chemicals(s) in the container(s).

106.9 Define the following items.

a. HASMINCEN

- Central Hazardous Materials Center of an installation
- Responsible for procurement and inventory management activities.

b. CHRIMP- Consolidated Hazardous Material Reutilization Inventory Management Program

Purpose

- Reduce costs
- Protect navy and other personnel from unnecessary exposure to Hazardous Waste and Material
- Minimizes the Navy's long-term risk for liability associated with HW disposal
- Comply with all Federal, state and local environmental statutes, laws, and regulations.

c. HICS- Hazardous Inventory Control System
   - Prepares reports for administration purposes of the HAZMAT inventory. A combined program with CHRIMP
- Both CHRIMP and HICS are being replaced with Hazardous Substance Management System (HSMS). This program provides the same functions.

d. AUL- Authorized User List
   - Addresses both types of quantities of HM authorized for use by individual activities.
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106.10 Discuss the aspects of portable containment of oil spills on water.
- An oil slick on the surface of the water blocks the flow of oxygen from the atmosphere into the water.
- Booming of spills has proved to be effective in containing spills of liquids on relatively calm and current-free waters.
- Following containment of oil spills on water, various methods of removing the confined liquid have been used.
- Absorbents, such as straw, plastics, sawdust, and peat moss are spread on the surface of the spill and then collected and burned on shore.
- Skimming devices operate on a different principal and must include pumps and separators.
- Skimmers scoop up the oil and water and send them through on oil separator and rollers to which only the oil adheres.
- The oil is then removed by scraping and compression.

106.11 Discuss the following:

a. Oil spills
   - Completely removes all contaminated soil from the site to a facility or landfill that is designed to receive such material

b. Grubbing operations
   - Large scale clearing in initial stages of a project can produce damaging side effects
- Increased soil erosion
- Reduction of atmospheric oxygen
- Destruction of wildlife habitat

Preventative measure
- Save as much vegetation as possible
- Construct shallow trenches around the project
- Burn only when necessary and after obtaining a burn permit
- Do not use petroleum-based fuels to start fires.

c. Asbestos
- Fibrous material used extensively from the 1930's to the 1960'a
- Covered by OPNAVINST 5100.23
- As a rule **NCF DOES NOT** DO ASBESTOS WORK

d. Polychlorinated Biphenyl's (PCB)

- Group of toxic chemicals used extensively as insulators and coolers in electrical equipment, especially transformers
- Causes irritation to eyes, skin, and lungs, also suspected of causing cancer.
- Accumulate in the environmental and are absorbed into human fat tissues.

Actions

- Secure the site
- Notify the activity environmental coordinator and the EPA branch or division

e. Hazardous warning labels.

- A diamond shaped symbol with 4 segments
- The three upper parts reflect hazards relative to health, fire and reactivity.
- The lower part reflects the specific hazard peculiar to the material
- The four hazards the labels are designed to illustrate are

- Health Hazard- The ability of the material to either directly or indirectly cause temporary or permanent injury or incapacitation
- Fire Hazard- The ability of the material to burn when exposed to heat source.
- Reactivity Hazard- The ability of the material to release energy when in contact with water
- Specific Hazard- This term relates to a special hazard concerning the particular product or chemical, which was not, covered by other hazard items.

The degree of hazard is expressed by a numerical code:

- 4 = extremely dangerous
- 3 = dangerous hazard
- 2 = moderate hazard
- 1 = slight hazard
- 0 = no hazard